



Prairie Island Independent Spent Fuel Storage Installation License Renewal Pre-Submittal Meeting



Rockville, Maryland
March 17, 2011

Xcel Energy Attendees

- **Lee Samson – Spent Nuclear Fuel Projects Manager**
- **Lynne Gunderson – Projects Licensing Manager**
- **Oley Nelson – Spent Nuclear Fuel Project Engineer**
- **Jennie Eckholt – Licensing Engineer**
- **Bill Roman – Project Engineer**

Agenda

- **Purpose**
- **Prairie Island Nuclear Generating Plant (PINGP)
Independent Spent Fuel Storage Installation
(ISFSI) Background**
- **Licensing Approach for Submittal**
- **Scope of License Renewal Submittal**
- **Schedule**
- **Summary**
- **Feedback / Discussion**

Purpose

- Discuss ISFSI License Renewal Application (LRA) licensing approach and schedule
- Obtain NRC feedback

PINGP ISFSI Background

Site Background



PINGP ISFSI Background

License Background

- **Original Site Specific License issued October 1993**
 - ◆ 20-year license expires October 31, 2013
 - ◆ TN-40 Cask Design
- **Amendment for TN-40HT cask design issued in August 2010**

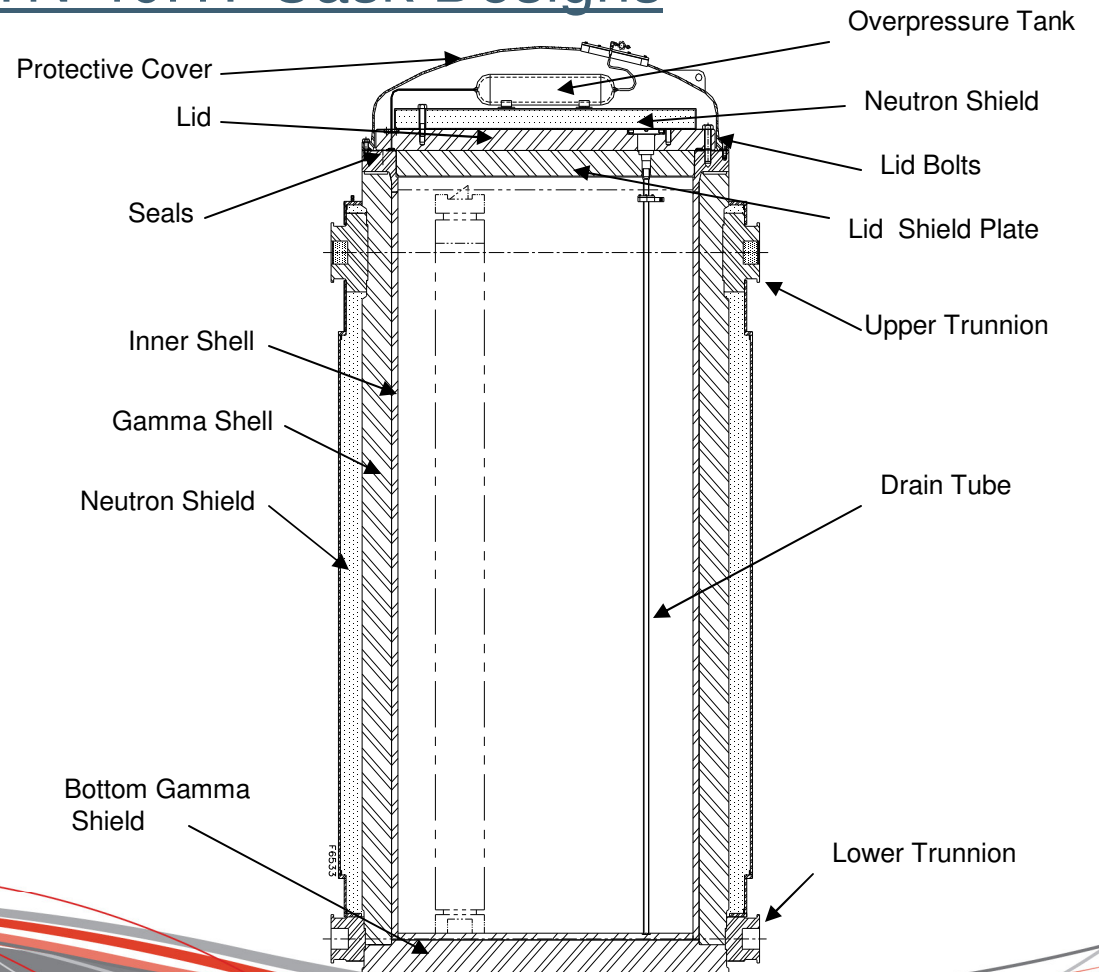
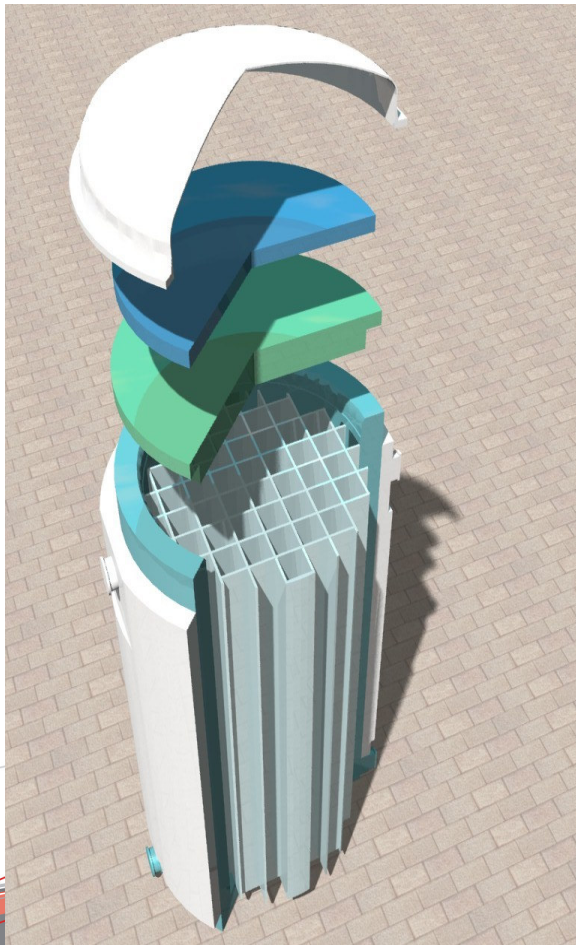
Licensing Approach for Submittal

Regulations and Guidance

- **10 CFR 72.42**
 - ◆ **Renewal term of 40 years**
 - ◆ **Time Limiting Aging Analyses (TLAA)**
 - ◆ **Aging Management Program (AMP)**
 - ◆ **Design Basis**
- **Draft NUREG-1927**
- **Recent industry applications and Requests for Additional Information (RAIs)**

Scope of License Renewal Submittal

TN-40 and TN-40HT Cask Designs



Scope of License Renewal Submittal

Inspections

- **Draft NUREG-1927**
- **Routine inspections**
 - ◆ **Outer cask surfaces**
 - ◆ **Concrete pads**
 - ◆ **Earthen berm**
- **Additional inspections scheduled summer of 2011**
 - ◆ **Longest cask in service**
 - **Under protective cover**
 - **Bottom of cask**

Scope of License Renewal Submittal

Scoping

- **PI ISFSI Licensing Basis contains 2 Quality Assurance classifications**
 - ◆ **Safety-Related (SR)**
 - ◆ **Important to Safety (ITS)**
- **Scoping Criteria**
 - ◆ **Criterion 1: ITS or SR**
 - ◆ **Criterion 2: non-ITS or non-SR but failure would impact fulfillment of safety function**

Scope of License Renewal Submittal

Screening

- **Identify the intended functions of subcomponents of in-scope structures, systems, and components**
 - ◆ **Criticality control of the spent fuel (CC)**
 - ◆ **Heat transfer (HT)**
 - ◆ **Maintaining a pressure boundary (PB)**
 - ◆ **Radiation shielding (SH)**
 - ◆ **Structural support, functional support, or both (SS)**
- **Scoping and Screening results in Section 2 of LRA per draft NUREG-1927**

Scope of License Renewal Submittal

Aging Management Review (AMR)

■ AMR Process

- ◆ Identify structure or component material and environment
- ◆ Determine if component is subject to an aging effect
- ◆ Identify aging effects requiring management via
 - TLAA
 - AMP

Scope of License Renewal Submittal

Managing Aging Effects

■ TLAAs

- ◆ Six attributes per draft NUREG-1927
- ◆ Disposition TLAAs per draft NUREG-1927

■ AMP

- ◆ Per draft NUREG-1927
- ◆ Credit existing PINGP programs and activities

Scope of License Renewal Submittal

Supplemental Environmental Report

■ Scope and Content

- ◆ Benchmark recent industry ISFSI LRAs and RAIs
- ◆ Includes supplemental analyses of items considered in the PINGP ISFSI original Environmental Report

■ Recent PINGP/Environmental work

- ◆ PINGP plant License Renewal Application
- ◆ State of Minnesota Certificate of Need (Docket No 08-510) for increased storage at PINGP ISFSI

Schedule

- Submittal is scheduled for October 2011
- NRC Review schedule?

Conclusions

Prairie Island ISFSI LRA:

- **Follow guidance of draft NUREG-1927**
- **No unique issues with Scoping, Screening or AMR**
- **Schedule for submittal is October 2011**



Discussion

Questions ?

